

REMARKS/ ARGUMENTS

The Office Action of March 29, 2006 has been carefully reviewed and this response addresses the Examiner's concerns.

I. Status of the Claims

Claims 1-30 are pending in the application.

Claims 1-7 and 17-23 are withdrawn from consideration.

Claims 8-10, and 13 and 15 were rejected under 35 USC 102(b) as being anticipated by Birdwell. (US 5,877,876).

Claims 14 and 16 were rejected under 35 USC 103(a) as being unpatentable over Birdwell. (US 5,877,876) in view of Wu (US 5946116).

Claims 24-25 were rejected under 35 USC 102(b) as being anticipated by Dickson (US 5,272,550).

Claims 11-12 and 26-30 were objected to as being dependent on a rejected claim but would be allowable if rewritten in independent form.

Claims 11, 12, 26, and 27 are amended in order to rewrite them in independent form.

Claim 8 is amended.

Claims 9 and 24-25 are canceled.

II. Support in the specification for the amendments

The amendment to claim 8 and claim 10 reciting a tiled polarization rotator finds support in p. 14, lines 17-20 ("'Patterned' as used herein includes a "tiled" polarization converter. A "tiled" polarization converter is one that has assembled from sub-units or components.").

III The 35 U.S.C. §102 rejections

Claims 8-10, and 13 and 15 were rejected under 35 USC 102(b) as being anticipated by Birdwell. (US 5,877,876 – the '876 patent).

Amended Claim 8 recites an optical switching/routing system including a polarization separating subsystem that separates an input optical beam into a first beam of a first polarization and a second beam of a second polarization, and that outputs a first output beam and a second output beam, and both output the human being of a same third polarization, a grating based selectable switching/routing subsystem, which receives the output of the polarization separating subsystem as an input channel of the third polarization and which provides an output channel of a same fourth polarization. A polarization recombining subsystem receives the output channel and provides a final output beam of a combined polarization and includes a tiled polarization rotator.

In order to clearly point out the novelty (and, incidentally, nonobviousness) of the present invention, Applicant presents the basis for such novelty by a specific comparison between the teachings of the '876 patent and the elements of the presently claimed invention, more specifically, as presented by independent claims 8..

The Examiner equates the patterned polarization rotator to component 234A of figures 17B of the '876 patent. Component 234A is a half wave plate (col. 18, lines 48-49, the '876 patent). Applicants respectfully state that a half wave plate is not a tiled polarization rotator.

Therefore, Applicants respectfully state that the '876 patent does not teach at least one of the limitations of amended claim 8.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); MPEP 2131.

Since the '876 patent does not teach or disclose, explicitly or inherently, at least one limitation of claim 8, Applicants respectfully state that claim 8 is not anticipated by the '876 patent.

Since Claims 10, 13 and 15 are dependent on claim 8, applicants respectfully state that the ‘876 patent does not teach or disclose at least one limitation of claims 10, 13 and 15, respectively, and, therefore, claims 10, 13 and 15 are not anticipated by the ‘876 patent.

IV. The 35 U.S.C. §103 rejections

Claims 14 and 16 were rejected under 35 USC 103(a) as being unpatentable over Birdwell. (US 5,877,876) in view of Wu (US 5,946,116 – the ‘116 patent).

Claims 14 and 16 are dependent on claim 8. As stated above, the ‘876 patent does not teach, disclose or suggest a tiled polarization converter. Applicants respectfully state that the ‘116 patent does not teach, disclosed or suggest a tiled polarization converter. Therefore, Applicants respectfully state that the ‘876 patent when combined with the ‘116 patent does not teach or suggest all the claim limitations of claim 14 or claim 16.

“To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.” (MPEP 2143)

Since the ‘876 patent when combined with the ‘116 patent does not teach or suggest all the claim limitations of claim 14 or claim 16, Applicants respectfully state that a *prima facie* case of obviousness has not been established for claims 14 and 16.

V. Conclusions

In conclusion, in view of the above remarks, Applicant respectfully requests the Examiner find claims 8, 10-16 and 26-30 allowable over the prior art and pass this case to issue.

Since three (3) independent claims have been added, the required fees should be charged to Deposit Account No. No. 50-3718.

In accordance with Section 714.01 of the MPEP, the following information is presented in the event that a call may be deemed desirable by the Examiner:

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Respectfully submitted,
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